

NOTES ON A SMALL COLLECTION OF HYMENOPTERA FROM NARRABRI, N.S.W.

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I beg to offer the following brief notes, bearing chiefly on the subject of geographical range, on a small but very interesting collection of bees and wasps obtained in the neighbourhood of Narrabri, N.S.W., by Mr. C. T. Musson, F.L.S., and forming part of the general collection exhibited by him at the meeting of this Society in December last. As far as it goes it is a typical collection of Australian hymenoptera ; no species of *Formicidæ* or *Mutillidæ* are represented in it, and Mr. Musson, to whom I am indebted for the specimens, tells me that he only took such wasps and bees as thrust themselves under his notice while collecting land molluscs. As little has yet been done in systematically collecting hymenoptera in this part of New South Wales, I have no doubt, judging from the specimens now before me, that it would prove a rich field to anyone devoting his time to this group.

Altogether, twenty-four species are contained in Mr. Musson's collection ; but several of them are not in sufficiently good condition for determination.

1. Gen. et sp. incert. (Fam. *Ichneumonidæ*, subfam. *Cryptinæ*).

This species also occurs at Adelaide, S.A., in Victoria, and at Sydney, where it is plentiful, and is parasitic on the larva of a common garden moth.

2. GASTERUPTION sp. (Fam. *Evannidæ*).

A species which also occurs about Sydney.

3. CHRYSIS sp. (Fam. *Chrysididæ*).

A species which has a wide range from Sydney northwards. Several species are parasitic in the clay nests of *Alastor*, and other genera of *Eumenidæ*.

4. *SCOLIA CORONATA*, Smith.

A large black wasp, with beautiful deep blue wings ; one of our commonest Sydney insects, but with an extensive range.

5. *POMPILIUS AURIFRONS*, Smith.

Also an insect with a very wide range, having been recorded from all parts of Australia.

6. *PELOPÆUS LÆTUS*, Smith.

Two specimens of this handsome slender-bodied wasp ; unlike the members of most of the genera of the family *Sphegidae*, it constructs clay cells, which it provisions with small spiders. It has a considerable range along the eastern coast, and is a common insect in the dry western or central lands.

7. *AMMOPHILA SUSPICIOSA*, Smith.

This species has a range from South Australia to Queensland, and is another of the common wasps in the western country, where, in company with the last species, it may be taken hovering over the flowers along the banks of creeks and lakes.

8. *PISON SPINOLÆ*, Shuckard ; and }
9. *P. MARGINATUS*, Smith. } (Fam. *Larridae*.)

Members of this genus construct very thin clay nests of an oval or elongate form, which they store with lepidopterous larvæ ; the young wasp larvæ, when full grown, form strong cocoons in which to undergo their metamorphosis. Both the above species are recorded from Adelaide and Sydney.

10. *ODYNERUS CONCOLOR*, Saussure. }
11. *O. BICOLOR*, Saussure. }

Both species range from North Queensland to New South Wales.

12. *DISCÆLIUS* sp.?

I have this species also from Adelaide and Sydney.

13. *POLISTES HUMILIS*.

This large red-coloured paper wasp takes the place of our *P. variabilis*, Sauss., in the western parts of New South

Wales, and is much dreaded by bushmen on account of its severe sting. It is most likely this species which stung Major Mitchell ("Three Expeditions," &c., Vol. I., p. 104), and not *Abispa australiana*, Mitch., as generally stated.

Several of the most interesting specimens belong to the family *Thynnidae*; and though so many species of this large family are restricted in their range, no part of Australia is without some representative of this fine group. Australia is the home of *Thynnus*, the only other parts of the world in which the species are found being several of the islands in the Pacific, and the western coast line of South America. According to Cresson's Catalogue the genus does not extend into North America.

14. THYNNUS sp. (3 ♀s).

The females being wingless, often quite unlike in markings, and not one-third the size of, the males, it is almost an impossibility to determine a species from female specimens alone.

15. THYNNUS PULCHRALIS, Smith.

This beautiful wasp was described from South Australia, and is figured in Brenchley's "Cruise of the Curaçoa" (1873). It has also been recorded from Rockhampton and Port Denison, Queensland, and the northern parts of New South Wales.

16. THYNNUS BRENCHLEYI, Smith.

This distinctly marked insect was named by Smith after Brenchley, who captured it at Champion Bay, W.A., and presented the specimen to the British Museum. This species is not represented in any of the collections in Australia, and Mr. Musson's capture of it on the opposite side of the continent, almost in the same latitude (Champion Bay being about 100 miles north of Narrabri), is a very remarkable discovery.

While referring to this group I should like to call attention to another species described and figured in Brenchley's work, under the name *T. conspicuus*, Smith, from the N.W. coast of Australia. A number of specimens of this species are in the Macleay Museum, which were taken by me feeding on the flowers of

Melaleuca leucadendron growing on the banks of the Fitzroy River, near Derby, N. W. Australia. Previous to this, Smith (Trans. Ent. Soc. London, 1868, p. 233) had described a very different species from South Australia under the same specific name. Both specimens are in the British Museum, so that it is hard to understand why the error has not been rectified before.

I should propose that the northern species, which evidently has no right to the specific name *conspicuus*, should be re-named *Smithii*.

17. XYLOCOPA MUSCARIA, Smith.

Four specimens (♀) of the common carpenter-bee, which constructs nests in the flower stalks of the grass-trees (*Xanthorrhœa*); found all over New South Wales.

18. XYLOCOPA ÆSTUANS, Latr.

Four specimens of this larger species, which ranges into North Queensland.

19. CROCISA NITIDULA, Fabr.

This handsome spotted bee has a wide range, from South Australia to North Queensland.

20. ANTHOPORA PULCHRA.

Three specimens of this fine blue-banded bee, which is found over the greater part of Australia.

21-23. MEGACHILE spp.

Five specimens of leaf-cutting bees, referable to three species, all of which are also to be found about Sydney.